

H/A

Notice of Allowability

Application No.

10/801,374

Examiner

Hsien-ming Lee

Applicant(s)

JOSHI ET AL.

Art Unit

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/18/2006.
2. ☒ The allowed claim(s) is/are 1,3-9,11-15,17,18,21,22,24 and 25.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

HSIEN-MING LEE
PRIMARY EXAMINER

5/26/06

DETAILED ACTION

Remarks

1. The rejection against claim 26 has been withdrawn in response to applicant's cancellation to claim 26.
2. Claims 1, 3-9, 11-15, 17-18, 21-22, 24 and 25 are pending in the application.

Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Gerald Maliszewski (Reg. No. 38,054) on May 26, 20006.

4. The application has been amended as follows:

In claim 1, at line 5, **insert** -- plasma -- before "source."

In claim 3, at line 2, **replace** "wherein forming a substrate" **with** -- wherein forming the substrate --.

In claim 4, at line 4, **insert** -- from -- after "of."

In claim 4, at line 9, **replace** "of" **with** -- from--.

In claim 5, at line 3, **insert** -- from -- before "50."

In claim 7, at line 2, **replace** " a substrate" **with** -- the substrate --.

In claim 8, at line 6, **replace** "a" **with** -- the --.

In claim 8, at line 11, **replace** "an M oxide " **with** -- the M oxide --.

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In claim 8, at line 12, **insert** -- M -- before “oxide.”

In claim 9, at line 1, **replace** “a” **with** -- the --.

In claim 9, at line 5, **insert** -- from -- after “approximately.”

In claim 11, at line 1, **replace** “a” **with** -- the --.

In claim 13, at line 4, **insert** -- from -- before “13.56.”

In claim 13, at line 8, **insert** -- reactive -- before “gases.”

In claim 14, at line 3, **insert** -- from -- before “50.”

In claim 15, at line 2, **replace** “a substrate” **with** -- the substrate --.

In claim 18, at line 4, **insert** -- from -- after “approximately.”

Allowable Subject Matter

5. Claims 1, 3-9, 11-15, 17-18, 21-22, 24 and 25 are allowed.

6. The following is an examiner’s statement of reasons for allowance:

The prior art of record either alone or combination does not teach or suggest treating the substrate at temperature *equal to and less than 360 °C*, using a high density inductively coupled plasma source; using the inductively coupled plasma source for plasma *oxidizing the substrate*; forming a *transparent* substrate layer and forming a *diffusion barrier layer overlying the transparent substrate layer* and underlying a silicon layer and depositing a thin film of element M overlying the silicon layer, wherein M is an element selected from a group including elements chemically defined as a solid and having an oxidation state in a range of +J to +5, *excluding silicon*.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hsien-ming Lee whose telephone number is 571-272-1863. The examiner can normally be reached on Tuesday-Thursday (7:30 ~ 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hsien-ming Lee
Primary Examiner
Art Unit 2823

May 26, 2006

HSIEN-MING LEE
PRIMARY EXAMINER



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